Strategic Plan Recommendations to the Blue Ribbon Task Force

Delta Vision "Delta-as-Place" Strategic Plan Working Group
April 24, 2008

The strategies listed below have been discussed and vetted by the "Delta-as-Place" working group in the four meetings held to date. Each strategy is explained in greater detail in the attached one-page summaries.

Strategy #6, and the performance standards for most strategies, will be the subject of the fifth meeting of the group, to be held on April 30 at the Walnut Grove Library.

Please note that strategy #3 has two alternatives, one that is endorsed by a large majority of the group, and one put forward as a "minority opinion."

Recommended strategies:

1. Achieve a National Heritage Area designation for the Delta.

2. Create a Delta Conservancy that works in coordination with the Delta Protection Commission and the National Heritage Area to conserve key habitat lands, and to incentivize mutually beneficial mixtures of agriculture, habitat, and recreation wherever possible.

3. [*Majority opinion*] Prioritize levees in the western Delta for seismic upgrading, according to the recommendations of the Delta Risk Management Strategy. Use ring levees (a.k.a. polders), cross-levees, "green engineering" and subsidence reversal strategies as appropriate to reduce seismic risks and levee costs.

   In the southern Delta, prioritize development of rapid response strategies to seismic emergencies so that effects of levee failures, especially potential salinity intrusion, can be confined and reversed quickly after any earthquake.

   Adopt and maintain PL84-99 as the minimum levee standard throughout the Delta, except in specifically identified areas where ecosystem restoration plans consistent with this Vision will require levee removal.

   In addition, stabilize levees and other land forms throughout the Delta with green engineering principles that use planned vegetation to simultaneously improve levee strength, reduce the risk of flooding, lower costs of reclaiming flooded islands, reduce subsidence, and improve habitat. This is especially important in river corridors managed primarily for ecosystem quality (see strategy #5).

3. [*Minority opinion*] Prioritize levee improvements based upon an accepted analytical economic risk analysis instead of subjective rankings. Before being used to set policy, economic risk analyses for Delta conveyance alternatives need to be completed with the specific inclusion of hydrodynamic modeling of both long-term and short-term salinity impacts. Analytical

benefit-cost analyses can then be performed and combined with social values/needs to justify acceptable levels of levee improvements to guide future land use and flood control planning.

4. On the publicly-owned western Delta islands, manage a land-use transition to recreation, terrestrial habitat, subsidence reversal, carbon sequestration, dredged material handling and appropriate agriculture. Create a prominent recreation area on Sherman Island.

5. Manage the co-equal values, and the Delta as a place, by establishing water quality, ecosystem management and flood control priorities for key river corridors in the Delta.

6. [Policy #6 on Delta boundaries and urbanization under development]

7. Create visitation "gateways" at major points of entry to the Delta.

8. The State of California should conduct a comparative analysis of the long-term costs and benefits of:

    a) reinforcement of levees protecting highways against seismic and other levee failure threats;

    b) co-location of highways with adjacent infrastructure systems into fortified corridors;

    c) relocation of highways to areas above sea level.

    In addition, the state should require a consortium of public utilities and other infrastructure service providers to conduct the same analysis for their systems (including the additional possibility of burying lines).

9. Reduce flood threats to the Delta, and increase the flexibility and reliability of water management in the Delta watershed by:

    a) Acquiring lands or flood easements to create a flood bypass on the lower San Joaquin River that reduces flood threats to the urbanized areas of northern San Joaquin County.

    b) Acquiring lands or flood easements to expand the floodplain of the Cosumnes-Mokelumne River in the vicinity of Stone Lakes.

    c) Increasing the flood conveyance capacity of the San Joaquin River by expanding and restoring floodplains beginning at the Delta's edge and working upstream.

    d) Infiltrating and storing more floodwater upstream of the Delta using both groundwater and floodplain storage in the Sacramento Valley, San Joaquin Valley, and Tulare Basin, as well as opportune sites in the upper watersheds.

    e) Re-operating reservoirs to increase water supply yield without compromising flood management, at least partially by conveying stored water to groundwater basins.

10. Create a Delta-specific overlay with emergency response agencies to clearly define individual roles and responsibilities and identify gaps in response efforts.

11. Support the evolution of Delta agriculture to a sustainable, multi-functional agriculture, where growers produce food and fiber along with other environmental services. Provide Delta agriculture with incentives, rewards and market signals to produce environmental benefits such as wildlife habitat, carbon sequestration, subsidence reversal, control of non-native invasive species, flood management, water conservation and recreation.

12. Draft a Specific Plan for the Delta that will ensure the protection and continued vitality of Delta legacy towns by:

    a) Building ring levees at a level of flood protection consistent with recent floodplain development laws

    b) Siting the ring levees to allow long-term growth consistent with:
    - the towns' historic internal needs,
    - the towns' historic growth rates,
    - the Delta Protection Commission's Management Plan for the primary zone, and
    - the architectural and cultural character of the existing communities

    c) Encouraging new investment in legacy towns associated with recreation, tourism, ecosystem revitalization, and multi-functional agriculture.

13. Enhance the Delta ecosystem and tourism economy by carrying out a wide range of habitat restoration and enhancement activities, including, but not limited to:

    a) Restoration or creation of tidal marshes in Cache Slough, Suisun Marsh, Dutch Slough, Decker Island, and other appropriate locations

    b) Creation of a terrestrial habitat link between the Cache Slough and Suisun tidal marshes

    c) Management of the Yolo Bypass for native fish habitat, without diminishing flood control functions

    d) Creation or expansion of flood bypasses or floodplain habitat on the lower San Joaquin River and the lower Mokelumne/Cosumnes River (including McCormack Williamson Tract)

    e) Purchase of terrestrial habitat and wetlands easements, and encouragement of wildlife-friendly agriculture, in appropriate areas throughout the Delta.

Strategy #1: Achieve a National Heritage Area designation for the Delta.

Vision recommendations met:
2 9 10 12

Performance standard:
Achieve NHA designation within three years; complete management plan within six years.

To achieve the designation from Congress, the State of California and local entities should secure public support for the designation, jointly conduct the required feasibility study, and identify an appropriate management entity (which should be a local agency or a private non-profit corporation).

Upon receiving the designation, the management entity and its partners must develop a management plan within three years that describes how the NHA will combine preservation, recreation, economic development, heritage tourism, and heritage education to interpret and promote the region's distinctive landscape.

Basis in the Vision:

- The Vision recognizes that the Delta is a very large and complex mixture of working landscapes, habitat, and recreational resources.

- The Vision also recognizes that the Delta is "a unique place that has value in its own right" and that inevitable change should occur in a manner that "preserve[s] its core values" (Recommendation #2). With the NHA designation, the characteristics that make the Delta special – its unique physical environment, its distinctive cultural heritage, and its importance as a habitat for local and migratory species – can be recognized and enhanced without sacrificing the local economy or turning the region into a "museum piece."

- A National Heritage Area (NHA) is a place designated by the United States Congress "where natural, cultural and recreational resources combine to form a cohesive, nationally-distinctive landscape arising from patterns of human activity shaped by geography." Many of the Delta's key characteristics are nationally significant.

- The identity, "imageability," and marketing potential of the region are enhanced by the designation and the participation of the National Park Service

- Planning may be done by local organizations, and creates a regional management structure that empowers local citizens, but also coordinates with state and federal entities

Outstanding Issues:

- NHAs do not involve federal land ownership or regulation. However, the potential priorities of the National Park Service for the management of the Delta NHA should be

clearly understood before entering into any agreements with the federal government.

Strategy #2: Create a Delta Conservancy that works in coordination with the Delta Protection Commission and the National Heritage Area to conserve key habitat lands, and to incentivize mutually beneficial mixtures of agriculture, habitat, and recreation wherever possible.

Vision recommendations met:
1 2 3 10 11

Performance standard:
[forthcoming]

To maximize local participation and acceptance, ensure that there is adequate local representation on the Conservancy's governing body, and that the Conservancy is solely devoted to the Delta. In addition, ensure that the Conservancy can obtain adequate funding for both acquisition and appropriate ongoing maintenance of land.

The Conservancy should work with the Delta Protection Commission to implement the goals of the Commission's management plan and to conduct an assessment of the conservation needs of the Delta consistent with the Delta Vision recommendations. In addition, the Conservancy should submit proposed projects to the Commission for review, and should be required to respond to action requests by the Commission.

The Conservancy should also implement state programs to incentivize mutually beneficial mixtures of agriculture, habitat and recreation, including agri-tourism (e.g. wine tasting, U-pick farms), wildlife-friendly agriculture practices, birdwatching, and hunting. The specifics of such programs should be defined in consultation with the National Heritage Area, the Nature Conservancy, Central Valley Joint Venture, and other organizations with relevant expertise.

Basis in the Vision:

- Vision recommendation #10 calls for a change in the governance system of the Delta, and states that both an entity "that includes a substantial number of relevant local government officials...vested with the responsibility to ensure that land-use decisions...are consistent with vision" *and* an entity "that helps to mobilize public involvement and provides incentives and support for private interests to support this vision" are necessary to govern the Delta.

- A Delta Conservancy paired with the Delta Protection Commission, as described above, fulfills this goal.

Outstanding issues:

- The composition of the Conservancy's governing board and its relationship to the Delta Protection Commission are critical issues, and both should be structured to ensure that local expertise and local commitment to the region's future guide all decision-making.

NOTE: *A large majority of the Delta-as-Place working group endorses the following strategy recommendation. A minority opinion is presented afterwards.*

Strategy #3: Prioritize levees in the western Delta for seismic upgrading, according to the recommendations of the Delta Risk Management Strategy. Use ring levees (a.k.a. polders), cross-levees, "green engineering" and subsidence reversal strategies as appropriate to reduce seismic risks and levee costs.

Vision recommendations met:
1 3 9

Performance standard:
[forthcoming]

In the southern Delta, prioritize development of rapid response strategies to seismic emergencies so that effects of levee failures, especially potential salinity intrusion, can be confined and reversed quickly after any earthquake.

Adopt and maintain PL84-99 as the minimum levee standard throughout the Delta, except in specifically identified areas where ecosystem restoration plans consistent with this Vision will require levee removal.

In addition, stabilize levees and other land forms throughout the Delta with green engineering principles that use planned vegetation to simultaneously improve levee strength, reduce the risk of flooding, lower costs of reclaiming flooded islands, reduce subsidence, and improve habitat. This is especially important in river corridors managed primarily for ecosystem quality (see strategy #5).

To finance levee upgrades, assessment districts should be created for levees that provide urban protection, infrastructure protection, salinity control, or water conveyance services, wherein all of the beneficiaries share in the costs of levee improvements. Over time, the State Levee Maintenance (Subventions) Program should be directed towards those levees that do not provide these additional services (e.g. non-urban, agricultural, and wildlife levees).

Finally, a permanent entity devoted to the study of existing levee conditions and performance, and research and development of new levee designs, should be created. Initial research should focus on reducing the cost of seismically resistant and seismically recoverable levees, and on continuing to refine green engineering principles for use in the Delta.

Basis in the Vision:

- The Vision calls for policies that "match levee designs to land uses protected by those levees" (Recommendation #9), so that agricultural and urban lands, for example, are protected by levees of different quality and cost.

- The Vision identifies dual water conveyance as the "preferred direction" of analysis for water conveyance improvements. If dual conveyance is built, salinity control and protection of water conveyance will remain very important services of Delta levees.

- The Delta Risk Management Strategy and other studies show that the western and southern islands are the most important islands for salinity control, and are the most vulnerable to seismic threats.

- The subventions program was intended for agricultural areas, and its funds should not be used on expensive levees to protect newly urbanized areas on the Delta's edges.

- Levee designs must also take into account the importance of the land-water interface to the environment. Creating more areas where water meets a vegetated bank, rather than a rock levee, is desirable for aquatic ecosystems. These areas should be concentrated on selected river reaches that have appropriate water quality and relief from other stressors.

- Ring levees (a.k.a. polders) and cross-levees have the potential to greatly reduce the costs of island protection. In certain locations, polders could join together two or more islands at much lower cost than protecting each island individually.

Minority opinion

Strategy #3 (alternative): Prioritize levee improvements based upon an accepted analytical economic risk analysis instead of subjective rankings. Before being used to set policy, economic risk analyses for Delta conveyance alternatives need to be completed with the specific inclusion of hydrodynamic modeling of both long-term and short-term salinity impacts. Analytical benefit-cost analyses can then be performed and combined with social values/needs to justify acceptable levels of levee improvements to guide future land use and flood control planning.

For those levees that are economically sustainable, socially valuable and consistent with the BRTF vision: 1) Finance appropriate levee improvements through measures consistent with benefits received; 2) Develop levee improvements that are not prescriptive, but instead are based upon specific site designs commensurate with the hazards; 3) Continue Subventions and Special Projects program funding consistent with the benefits received.

Ecosystem corridors or large landscape gradients may include the construction of significant vegetated setback levees along the Cosumnes/Mokelumne River system, the lower Yolo Bypass, or the lower San Joaquin River.

Vision recommendations met:

1 3 9

Performance standard:

Complete a risk analysis of all reasonable alternatives within 6 months. Establish sustainable flood control goals within one year, commensurate with risk study results.

Basis in the Vision:

- The Vision calls for policies that "match levee designs to land uses protected by those levees" (Recommendation #9). Therefore, levee designs should not be prescriptive (not PL 84-99 everywhere) and based upon analytically derived benefit-cost analyses, social needs and specific local site conditions.

- The Vision identifies dual water conveyance as the "preferred direction" of analysis for water conveyance improvements. Levee policies need to recognize this preferred direction as a likely alternative.

- The subventions program was originally intended to be targeted to agricultural areas. Its funds should not be used on expensive levees to protect newly urbanized areas on the Delta's edges.

- Levee expenditures must also take into account the Delta's ecosystem restoration plans in light of sea level rise. Creating additional vegetated banks, hydrodynamic residence time diversity, tidal marsh and food web enhancements are desirable for aquatic ecosystems. Substantial levee improvements should be compatible with these proposed ecosystem improvements to avoid stranded costs.

Outstanding issues (relevant to both proposals):

- If a federally sanctioned standard such as PL 84-99 is not achieved in the Delta, federal aid may not be forthcoming after a disaster.

- The PL84-99 standard is partly defined by the height of the levee crown above the water level. Therefore, as sea level rises, continued heightening of levees will also be required to maintain the standard. (This is true of any pre-determined level of protection).

- The Delta levee system is interconnected. In some situations, if a given island were to fail permanently, the cost of strengthening the neighboring levees against resulting wave action might be greater than the cost of protecting the original island in the first place.

- Dredge materials from the ports of Stockton and Sacramento, and from planned dredging of both ship channels, will provide a large source of relatively inexpensive material for levee heightening in the coming years.

- Recent island failures have illustrated the potential value of levee vegetation in island protection. Jones Tract (which flooded in 2004) completely lacked vegetation in internal levees, was in danger of complete loss due to scouring of the interior sides of levees during the flood, and was very expensive to reclaim. Prospect Island was densely covered with vegetation, was therefore protected from erosive wave action on the interior of levees despite being flooded for two years, and was reclaimed at much lower cost.

Strategy #4: On the publicly-owned western Delta islands, manage a land-use transition to recreation, terrestrial habitat, subsidence reversal, carbon sequestration, dredged material handling and appropriate agriculture. Create a prominent recreation area on Sherman Island.

Vision recommendations met:

1 2 3 9 10 12

Performance standard:

Form consortium within two years; execute land-use transition within twenty years

Form a consortium of the owners of these islands to create a master plan to achieve this transition. Work in coordination with the National Heritage Area, the Delta Conservancy, and other relevant organizations to strategize recreational and habitat investments. As part of that effort, form a recreation area on Sherman Island that is visible from the Antioch Bridge and that will attract recreational users from around Northern California.

Basis in the Vision:

- The Vision calls for the management of the co-equal values and the protection of the special characteristics that make the Delta unique, including recreational and habitat values. In describing the co-equal values (Recommendation #1), the Vision states that "failure to protect the estuary could result in an inland salt sea or the collapse of an estuarine ecosystem."

- The western Delta islands face high seismic and flood risks, but also play a pivotal role in salinity control and in reducing wind and wave action on levees in the interior Delta. Allowing these keystone islands to fail could destabilize many other islands and allow salt water to range deep into the Delta, potentially compromising water conveyance and in-Delta agriculture. These islands also have critical infrastructure, including Highway 160, and there is a relatively large population of permanent residents on Bethel Island.

- As sea level rise proceeds, it may become difficult to sustain traditional forms of agriculture on these islands because the available water may become too salty in the summertime and freshwater flows available for salinity repulsion may become scarcer. Therefore, the managed land-use transition called for here may be a useful model to foster continued productive use of other western Delta islands in the future.

- Sherman Island is an ideal place to put recreation uses, because Highway 160 runs through it, it is highly visible from the Antioch Bridge, and very large populations live nearby in Contra Costa County.

Outstanding issues:

- Ensure that investments to create recreational areas on Sherman Island do not absorb all available funding for recreational areas throughout the Delta.

- In executing this transition, consider assistance for dislocated farmworkers.

Strategy #5: Manage the co-equal values, and the Delta as a place, by establishing water quality, ecosystem management and flood control priorities for key river corridors in the Delta.

Vision recommendations met:

1 3 9 12

Performance standard:

In selected habitat channels, [_____] percent increase in organic carbon production, and [_____] percent reduction in known population stressors for identified desirable aquatic species, within these corridors within 20 years.

For each of the major river systems entering the Delta (the Sacramento, the Cosumnes-Mokelumne, and the San Joaquin), the state should ensure that at least one continuous corridor of high-quality aquatic habitat and riparian vegetation is sustained. These selected river corridors (especially those that are downstream of flood bypasses) should also be enlarged where possible to convey more floodwater through the Delta. Investments in levees, water conveyance, and other infrastructure should be compatible with this objective.

Because high-quality aquatic habitat may require water quality conditions that are incompatible with drinking water and/or irrigation diversions, and water flow conditions that are incompatible with certain export pumping patterns, this strategy may require hydrologic separation of these selected habitat channels from channels used in water conveyance. Such separation may be achieved through operable barriers that allow long-term management flexibility and boat passage, and should be conducted on an experimental basis first.

Potential key habitat corridors may include Old or Middle River, the Steamboat-Sutter-Elk Slough corridor, Georgiana Slough, and the Mokelumne/Cosumnes system. Environmentally friendly recreational investments should also be concentrated along the selected corridors, given their high scenic quality.

Basis in the Vision:

- The Vision establishes the co-equal values of water supply and ecosystem health. Water quality issues – especially dissolved organic carbon and salinity levels – may require that these objectives be met in different river channels. The corridors also help establish the Delta's sense of place, protect it from floods, and support its economy.

- The Vision also states that the Delta "must function as an integral part of a healthy estuary" (recommendation #3). To meet this goal, it is necessary that an unbroken gradient of estuarine and riverine ecosystem conditions continue to exist in perpetuity on each major river system flowing into the Delta, allowing greater flexibility for these ecosystems to adapt to sea level rise and other long-term drivers of change.

- Riparian vegetation enhances scenic quality for recreational benefits.

Outstanding issues

- Specific channels will have to be identified in coordination with ecosystem experts

Strategy #6:

[Delta boundary and urbanization policy under discussion]

Strategy #7: Create visitation "gateways" at major points of entry to the Delta.

The state should issue a model ordinance to local governments for the creation of special enterprise zones at the major "gateways" to the Delta. These zones should provide economic incentives, possibly including tax breaks and low-interest loans, to appropriate investments in welcome centers, interpretive centers, recreational support services, and transportation (both land and water) from these locations to points of interest throughout the region.

Vision recommendations met:

2 9 11

Performance standard:

Creation of model ordinance for special enterprise zone within two years; adoption of model ordinance by appropriate local government within five years.

These investments should be made in coordination with the Delta Protection Commission, the National Heritage Area management plan, and city and county general plans. They should be in highly visible locations near major highways, and in areas with relatively low disaster risks (i.e. either above sea level or well protected by high-quality levees). These investments should also be made in places, and in a manner, that does not compromise valued regional characteristics of the Delta, such as a predominantly agricultural landscape, a rural quality of life, and the historic character of the built environment.

Potential sites include Rio Vista on the west; Freeport, West Sacramento, or the Yolo Bypass on the north; Thornton or Stockton on the east; and Antioch or Lathrop on the south.

Basis in the Vision:

- The Vision urges that all new investments in the Delta be made in a fashion consistent with the need to preserve public safety, the Delta's unique character, and the co-equal values (recommendation #9).

- Enhancing tourism and recreation in the Delta will require attracting more people from nearby cities and highways, and creating easily identifiable points of entry to this large region.

- Concentrating such investments in specific gateway areas will confine traffic impacts and other undesirable side effects of increased visitation to the areas best able to handle them. In particular, many levee roads in the primary zone are narrow and winding, and cannot safely accommodate dramatically increased traffic loads.

Outstanding issues:

- There may be a need to provide more housing near gateway areas

Strategy #8: The State of California should conduct a comparative analysis of the long-term costs and benefits of:

a) reinforcement of levees protecting highways against seismic and other levee failure threats;

b) co-location of highways with adjacent infrastructure systems into fortified corridors;

c) relocation of highways to areas above sea level.

In addition, the state should require a consortium of public utilities and other infrastructure service providers to conduct the same analysis for their systems (including the additional possibility of burying lines).

Vision recommendations met:

9 12

Performance standard:

State oversight bodies issue analysis requirements within one year; analyses completed within four years.

These analyses must consider the full range of economic and life safety consequences of service outages, the likelihood of such outages, and the proportionate share of the collective costs and benefits achievable under alternative (b) above. The analyses must consider these costs and benefits over a time period commensurate with the expected lifespan of the infrastructure system in question.

Once these analyses are completed, the state should assist infrastructure service providers in coordinating and executing any mutually beneficial actions that the analyses find to be necessary.

Basins in the Vision:

- The Vision states that "decisions about infrastructure should seek to reduce reliance on levees" (Recommendation #9)

- Infrastructure providers should be encouraged to make capital improvement decisions that are collectively rational, consider statewide interests, and accommodate the full expected lifespan of the systems, rather than any shorter planning horizon dictated by financial or regulatory processes.

- The importance of infrastructure, especially highways, to life safety and emergency response in the Delta must also be considered at least as important as economic considerations in any risk analysis.

Outstanding issues:

- Highways are critical for real-time emergency response and life safety protection, so there must be a defensible way of incorporating these considerations into a cost-benefit analysis.

Strategy #9: Reduce flood threats to the Delta, and increase the flexibility and reliability of water management in the Delta watershed by:

a. Acquiring lands or flood easements to create a flood bypass on the lower San Joaquin River that reduces flood threats to the urbanized areas of northern San Joaquin County.

b. Acquiring lands or flood easements to expand the floodplain of the Cosumnes-Mokelumne River in the vicinity of Stone Lakes.

c. Increasing the flood conveyance capacity of the San Joaquin River by expanding and restoring floodplains beginning at the Delta's edge and working upstream.

Vision recommendations met:

1 3 4 8 9 11 12

Performance standard:

Work with the Central Valley Plan of Flood Control to plan these improvements by 2013.

Begin acquiring land and/or flood easements for the South Delta flood bypass within two years.

d. Infiltrating and storing more floodwater upstream of the Delta using both groundwater and floodplain storage in the Sacramento Valley, San Joaquin Valley, and Tulare Basin, as well as opportune sites in the upper watersheds.

e. Re-operating reservoirs to increase water supply yield without compromising flood management, at least partially by conveying stored water to groundwater basins.

These efforts should be coordinated with, or recommended to, the Central Valley Flood Protection Plan, the State Plan of Flood Control, and other statewide water planning and flood control initiatives.

Basis in the Vision:

- The Vision calls for "improve[d] floodplain management" (recommendation #9) within and upstream of the Delta, and calls for improved water supply reliability as one of the co-equal values (recommendation #1).

- Increasing flood conveyance capacity on the lower San Joaquin River would benefit the Delta ecosystem (recommendation #3) and allow upstream reservoirs to be managed for greater water supply yield, increasing supply reliability for water users.

- Improvements in technology and weather forecasting also allow greater flexibility in reservoir operation, for the benefit of both flood control and water supply yield

- Storing more floodwater upstream of the Delta will reduce flood threats to the Delta and increase locally available supplies of groundwater.

Outstanding issues:

- These recommendations require coordination among several planning processes.

Strategy #10: Create a Delta-specific overlay with emergency response agencies to clearly define individual roles and responsibilities and identify gaps in response efforts.

Vision recommendations met:

9 12

Performance Standard:

The Delta Conservancy will identify existing and needed incentive, market and mitigation programs and focus them to support a sustainable Delta agriculture. A strategy, or strategies, to leverage state, local and federal conservation and economic development resources, should be in place prior to the next U.S. Farm Bill in 2013.

Within 2 years or summer 2010, complete a collaboratively prepared Delta-wide emergency plan, including life safety personnel evacuation, animal control, and public safety as well as flood fighting needs in an emergency. The plan must be comprehensive and incorporate existing organizations, recognizing their respective authorities for conducting emergency response in the Delta. The plan must identify problems, such as gaps, overlaps or conflicts among the responses of these organizations and work within existing authorities to address those problems. This collaboration must include the Department of Water Resources, the Delta Protection Commission, the Governor's Office of Emergency Services, the Delta counties Flood Response Group (five counties), the Corps of Engineers, Department of Defense (U.S. Air Force, U.S. Navy, U.S. Marine Corps), Department of Transportation (U.S. Coast Guard) the regulated utilities, the railroads, reclamation districts and water purveyors both public and private.

To ensure availability of necessary funds, the Governor should write an Executive Order declaring that this work, to be done under the co-direction of the Delta Protection Commission and the Office of Emergency Services, qualifies for funding from the Office of Emergency Services. Due to the Commission's makeup of 23 members representing local government in the Delta, state government with responsibilities in the Delta and 3 Delta residents, it is uniquely suited to co-lead this collaborative effort. The commission would have the best understanding of the challenges faced by deeply subsided islands or legacy towns. In addition, the entities involved in this comprehensive plan must conduct emergency exercises together to determine if gaps in comprehensive emergency planning or response still exist. Funding to support the plan development should be a line item in the next water bond.

Basis in the Vision:

- The Vision's Near Term Action #4 says that "state government should improve its response capabilities through embarking upon a comprehensive series of emergency management and preparation actions within a few months. California can not wait for a flood before planning a response." To effectively get all entities to work together in rapid fashion will require explicit direction from the Governor's Office.

- The need is to coordinate and refine the responsibilities of the many agencies charged with their portion of the total response effort. The Department of Water Resources has responsibility for flood fight actions; during that same event, the counties OES have

responsibility for law enforcement. Other departments have specific portions of the emergency response, however, no agency or organization addresses the needs of evacuating the elderly from legacy towns or providing for the day to day needs of these evacuees. The Delta-Specific overlay will identify the gaps and work with response agencies to eliminate them, and to validate the results through combined emergency response exercises.

- The Vision places value on the Legacy towns and seeks to protect and recognize them as very unique places.

- The deeply subsided islands are especially vulnerable to a flood emergency and an emergency plan must specifically address how to protect them.

- The Vision calls for better governance in the delta. A collaboratively prepared emergency plan bringing together the many different entities with emergency response jurisdiction is a good example of better governance. As with many delta issues, delta emergency planning can not effectively be done in isolation by only some of the responsible entities.

Outstanding issues:

- Emergency response exercises should plan for and incorporate some local decision-making autonomy in emergency situations

- There should be further investigation into the implications for emergency response of DWR's new policy that they will cap levee breaches, but not necessarily fill them.

- The most important elements in emergency response are clear lines of authority and the need to ensure access to money and resources in a timely manner. All efforts at coordination must eventually produce these conditions.

Strategy #11: Support the evolution of Delta agriculture to a sustainable, multi-functional agriculture, where growers produce food and fiber along with other environmental services. Provide Delta agriculture with incentives, rewards and market signals to produce environmental benefits such as wildlife habitat, carbon sequestration, subsidence reversal, control of non-native invasive species, flood management, water conservation and recreation.

Vision recommendations addressed:

1 2 3 4 6 7 9 11 12

Performance Standard:

The Delta Conservancy will identify existing and needed incentive, market and mitigation programs and focus them to support a sustainable Delta agriculture. A strategy, or strategies, to leverage state, local and federal conservation and economic development resources, should be in place prior to the next U.S. Farm Bill in 2013.

A number of existing state, federal and non-profit programs, most prominently those of the USDA Farm Bill Conservation Title, provide incentives to farmers to alter their farming practices to provide broader environmental benefits. Closer federal, state and local coordination of programs is needed to bring many of these programs to bear in the Delta.

The state should use its working lands conservation programs in a coherent manner to leverage the conservation funding available through the USDA Farm Bill. Supported by the National Heritage Area (see strategy 1), the Delta Conservancy (see strategy 2) should be assigned the task of coordinating and strategically applying state, federal, local and private working lands stewardship programs. Federal, state and local mitigation requirements and agricultural easement programs should also be crafted to support the transition of Delta growers to multi-functional forms of agriculture that serve the goals of the Delta Vision. Regional labeling programs and encouragement of organic production may be particularly promising initiatives.

Basis in the Vision:

- Recommendation 1 calls for a change in the current ways of using the Delta and its watershed where humans learn to work with natural processes, such as the cultivation of wetland crops to reverse or stabilize subsidence.

- Recommendation 2 values the Delta as a place that continues to be dominated by agriculture, habitat and recreation, including beneficial mixes of these uses. The Vision also values agriculture for supporting the Delta's communities.

- Other recommendations call for agricultural water conservation, wildlife-friendly farming and levees, and for agricultural sustainability in the face of urban and ranchette pressures.

Outstanding issues:

- AB32 and other climate change programs must recognize agriculture as a viable carbon sequestration strategy.

Strategy #12: Draft a Specific Plan for the Delta that will ensure the protection and continued vitality of Delta legacy towns by:

Vision recommendations addressed:
2 9 11

Performance Standard:
[forthcoming]

a. Building ring levees at a level of flood protection consistent with recent floodplain development laws

b. Siting the ring levees to allow long-term growth consistent with:

- **the towns' historic internal needs,**
- **the towns' historic growth rates,**
- **the Delta Protection Commission's Management Plan for the primary zone, and**
- **the architectural and cultural character of the existing communities**

c. Encouraging new investment in legacy towns associated with recreation, tourism, ecosystem revitalization, and multi-functional agriculture.

This Specific Plan should include consideration of the full range of topics dealt with in local plans in California, including economic development, public services and infrastructure. The Delta Protection Commission's Management Plan for the Delta has a more narrow scope defined by the Delta Protection Act; the region would benefit from a Specific Plan that addresses a wider range of issues.

Basis in the Vision:

- The Vision recognizes in recommendation #2 that "changes do occur in the Delta, but [the] Vision helps support its transitions and preserve its core values."

- The Vision supports increased recreation and tourism in the Delta. If this is to occur, local government functions such as emergency services must be expanded in capacity. This requires local economic growth that increases local tax revenues.

- Any new growth must be managed so that it does not diminish the Delta's unique values and characteristics.

Outstanding issues:

- Defining a pattern of investment and growth in legacy towns consistent with (b) above will require more extensive local planning efforts than have occurred historically

Strategy #13: Enhance the Delta ecosystem and tourism economy by carrying out a wide range of habitat restoration and enhancement activities, including, but not limited to:

Vision recommendations addressed:
1 2 3 9 12

Performance Standard:
[forthcoming]

a) Restoration or creation of tidal marshes in Cache Slough, Suisun Marsh, Dutch Slough, Decker Island, and other appropriate locations

b) Creation of a terrestrial habitat link between the Cache Slough and Suisun tidal marshes

c) Management of the Yolo Bypass for native fish habitat, without diminishing flood control functions

d) Creation or expansion of flood bypasses or floodplain habitat on the lower San Joaquin River and the lower Mokelumne/Cosumnes River (including McCormack Williamson Tract)

e) Purchase of terrestrial habitat and wetlands easements, and encouragement of wildlife-friendly agriculture, in appropriate areas throughout the Delta.

These activities should be carried out or supervised by the Delta Conservancy, and should involve willing sellers to the greatest extent possible.

Basis in the Vision:

- The Vision calls for the Delta ecosystem to function "as an integral part of a healthy estuary" that includes a "diverse habitat mosaic, expanded areas of seasonal and tidal wetlands, [and] effective connections between the estuary and the larger landscape" (recommendation #3)

- The Vision also recognizes the importance of the terrestrial ecosystem and the Delta's role in the Pacific Flyway

Outstanding issues:

- These ecosystem enhancement activities should be carried out in a way that avoids "checkerboarding" (i.e. fragmenting) of agricultural lands, which could endanger the local farming economy and diminish local tax revenues.

- The potential for increased conflicts between endangered species and landowners should also be considered